

ATTACHMENT A

1. (currently amended) Solid Lewis adducts comprising MgCl₂, a Lewis base (LB) selected from the group consisting of ethers, ketones, and alkyl esters of C₁-C₁₀ aliphatic carboxylic acids, ketones, silanes or amines, and an alcohol ROH, in which R is a ~~C₁-C₁₅~~ C₁-C₁₅ hydrocarbon group optionally substituted with heteroatom containing groups, which compounds are in molar ratios to each other defined by the following formula: MgCl₂(ROH)_m(LB)_n in which m ranges from 0.5 to 2.5 ~~0.05 to 6~~, and n ranges from 0.07 to 6.
2. (cancelled)
3. (cancelled)
4. (currently amended) The solid Lewis adducts according to claim 1 claim 3 in which the ethers are ~~C₂-C₂₀~~ C₂-C₂₀ aliphatic ethers.
5. (previously presented) The solid Lewis adducts according to claim 4 in which the ethers are cyclic ethers having 3-5 carbon atoms.
6. (currently amended) The solid Lewis adducts according to claim 5 in which the cyclic ether is tetrahydrafurane tetrahydrofuran.
7. (cancelled)

8. (currently amended) The solid Lewis adducts according to claim 1 in which the R groups are ~~C1-C10~~ C₁-C₁₀ saturated hydrocarbon groups.
9. (currently amended) The solid Lewis adducts according to claim 8 in which the R groups are methyl, ethyl and ~~C3-C8~~ C₃-C₈ alkyl groups.
10. (previously presented) The solid Lewis adducts according to claim 1 in which the ROH alcohol is ethanol.
11. (currently amended) The solid Lewis adducts according to claim 1 in which ~~m ranges from 0.1 to 4.5 and n ranges from 0.08 to 3.~~
12. (currently amended) The solid Lewis adducts according to claim 11 in which ~~m ranges from 0.5 to 4 and n ranges from 0.1 to 2.5.~~
13. (previously presented) The solid Lewis adducts according to claim 1 further comprising water in a molar ratio defined by the formula $MgCl_2(ROH)_m(LB)_n(H_2O)_p$, in which the index p ranges from 0.01 to 0.6.
14. (currently amended) A process for preparing a solid Lewis adduct comprising MgCl₂, a Lewis base (LB) selected from the group consisting of ethers, ketones, and alkyl esters of C₁-C₁₀ aliphatic carboxylic acids, ketones, silanes or amines, and an alcohol ROH, in which R is a ~~C1-C15~~ C₁-C₁₅ hydrocarbon group optionally substituted with heteroatom containing groups, which compounds are in molar ratios to each other defined by the following

formula: $MgCl_2(ROH)_m(LB)_n$ in which m ranges from 0.5 to 2.5 ~~0.05 to 6~~, and n ranges from 0.07 to 6; the process comprising (i) contacting $MgCl_2$, ROH and LB optionally in the presence of an inert liquid diluent, thereby forming a mixture, (ii) heating the mixture up to the melting temperature of the mixture and maintaining said conditions so as to obtain a completely molten adduct; and (iii) rapidly cooling the molten adduct, thereby obtaining its solidification.

15. (currently amended) A process for preparing a solid Lewis adduct comprising $MgCl_2$, a Lewis base (LB) selected from the group consisting of ethers, ketones, and alkyl esters of C₁-C₁₀ aliphatic carboxylic acids, ketenes- ~~silanes or amines~~, and an alcohol ROH, in which R is a ~~C₁-C₁₅~~ C₁-C₁₅ hydrocarbon group optionally substituted with heteroatom containing groups, which compounds are in molar ratios to each other defined by the following formula: $MgCl_2(ROH)_m(LB)_n$ in which m ranges from 0.5 to 2.5 ~~0.05 to 6~~, and n ranges from 0.07 to 6; the process comprising contacting the LB compound with a preformed solid $MgCl_2(ROH)_m$.

16. (original) The process according to claim 15 in which the $MgCl_2(ROH)_m$ adduct derives from a starting adduct in which part of the alcohol has been removed by physical or chemical dealcoholation.

17. (original) The process according to claim 15 in which the LB compound is in vapor phase.

18. (cancelled)

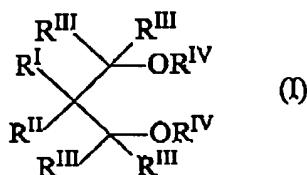
19. (currently amended) Catalyst components obtained by contacting a solid Lewis adduct comprising MgCl₂, a Lewis base (LB) selected from the group consisting of ethers, ketones, and alkyl esters of C₁-C₁₀ aliphatic carboxylic acids, ketones, silanes or amines, and an alcohol ROH, in which R is a C₁-C₁₅ C₁-C₁₅ hydrocarbon group optionally substituted with heteroatom containing groups, which compounds are in molar ratios to each other defined by the following formula: MgCl₂(ROH)_m(LB)_n in which m ranges from 0.5 to 2.5 ~~0.05 to 6~~, and n ranges from 0.07 to 6, with compounds of transition metals belonging to one of the groups 4 to 6 of the Periodic Table of Elements (new notation).

20. (currently amended) The catalyst components according to claim 19 in which the transition metal compound is selected from a titanium compounds compound of formula Ti(OR)_nX_{y-n} in which n is comprised between 0 and y; y is the valence of titanium; X is halogen and R is an alkyl radical having 1-10 carbon atoms or a COR group.

21. (currently amended) The catalyst components according to claim 19 in which the transition metal compound is selected from the group consisting of TiCl₃, TiCl₄, Ti(OBu)₄, Ti(OBu)Cl₃, Ti(OBu)₂Cl₂, and Ti(OBu)₃Cl.

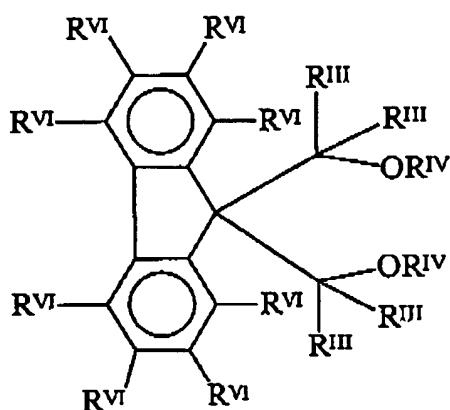
22. (currently amended) The catalyst components according to claim 19 further comprising an electron donor selected from the group consisting of esters, ethers, amines, and ketones.

23. (currently amended) The catalyst components according to claim 22 in which the electron donor is selected from the group consisting of 1,3-diethers of formula (I)



where R^I and R^{II} are the same or different and are hydrogen or linear or branched C₁-C₁₈ hydrocarbon groups which can also form at least one cyclic structure; R^{III} groups, equal or different from each other, are hydrogen or C₁-C₁₈ hydrocarbon groups; R^{IV} groups equal or different from each other, have the same meaning of R^{III} except that they cannot be hydrogen; each of R^I to R^{IV} groups can contain heteroatoms selected from the group consisting of halogens, N, O, S and Si.

24. (currently amended) The catalyst component according to claim 22 in which the electron donor is selected from 1,3-diethers of formula (III)



(III)

where the R^VI radicals equal or different are hydrogen, halogens; C_1-C_{20} alkyl radicals, linear or branched; C_3-C_{20} cycloalkyl, C_6-C_{20} aryl, C_7-C_{20} alkylaryl and C_7-C_{20} aralkyl radicals, optionally containing at least one first heteroatom selected from the group consisting of N, O, S, P, Si and halogens as substitutes for carbon or hydrogen atoms, or both; the radical radicals R^{III} are hydrogen or C_1-C_{18} hydrocarbon groups and the radical R^{IV} are C_1-C_{18} C_1-C_{18} hydrocarbon groups; and each of R^{III} and R^{IV} can contain a second heteroatom selected from halogens, N, O, S and Si.

25. (currently amended) A catalyst system for the polymerization of alpha-olefins $CH_2=CHR$, wherein R is hydrogen or a hydrocarbon radical having 1-12 carbon atoms, obtained by contacting a catalyst component with at least one organoaluminum compound, the catalyst component being obtained by contacting a solid Lewis adduct comprising $MgCl_2$, a Lewis base (LB) selected from the group consisting of ethers, ketones, and alkyl esters of C_1-C_{10} aliphatic carboxylic acids, ketones,

~~silanes or amines,~~ and an alcohol ROH, in which R is a ~~C1-C15~~ C₁-C₁₅ hydrocarbon group optionally substituted with heteroatom containing groups, which compounds are in molar ratios to each other defined by the following formula: MgCl₂(ROH)_m(LB)_n in which m ranges from 0.5 to 2.5 ~~0.05~~ to 6, and n ranges from 0.07 to 6, with compounds of transition metals belonging to one of the groups 4 to 6 of the Periodic Table of Elements (new notation).

26. (original) The catalyst system according to claim 25 in which the organoaluminum compound is an Al-alkyl compound.
27. (previously presented) The catalyst system according to claim 26 further comprising an external electron donor compound.
28. (currently amended) A process comprising polymerizing of olefins in the presence of a catalyst obtained by contacting a catalyst component with at least one organoaluminum compound, the catalyst component being obtained by contacting a solid Lewis adduct comprising MgCl₂, a Lewis base (LB) selected from the group consisting of ethers, ketones, and alkyl esters of C₁-C₁₀ aliphatic carboxylic acids, ketones, silanes or amines, and an alcohol ROH, in which R is a ~~C1-C15~~ C₁-C₁₅ hydrocarbon group optionally substituted with heteroatom containing groups, which compounds are in molar ratios to each other defined by the following formula: MgCl₂(ROH)_m(LB)_n in which m ranges from 0.5 to 2.5 ~~0.05~~ to 6, and n ranges from 0.07 to 6, with compounds of

transition metals belonging to one of the groups 4 to 6 of the Periodic Table of Elements (new notation).

29. (previously presented) The catalyst component of claim 24 where the R^{VI} radicals are selected from Cl and F.

30. (previously presented) The catalyst component of claim 24 wherein the at least one first heteroatom are selected from Cl and F.